

#### CLAIMS

1. Use of an  $\alpha$ -aminoamide of formula (I):

$$R-A$$
 $CH_2$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 

wherein:

A is a  $-(CH_2)_m$ - or  $-(CH_2)_n$ -X-, wherein m is 1 or 2; n is zero, 1 or 2; and X is -O-, -S- or -NH-;

R is a furyl, thienyl, or pyridyl ring or a phenyl ring, unsubstituted or substituted by one or two substituents independently selected from halogen, hydroxy,  $C_1-C_4$  alkyl,  $C_1-C_3$  alkoxy and trifluoromethyl;

R<sub>1</sub> is hydrogen or C<sub>1</sub>-C<sub>3</sub> alkyl;

 $R_2$  is hydrogen or  $C_1$ - $C_2$  alkyl, unsubstituted or substituted by hydroxy or phenyl; phenyl, unsubstituted or substituted by one or two substituents independently selected from  $C_1$ - $C_3$  alkyl, halogen, hydroxy,  $C_1$ - $C_2$  alkoxy or trifluoromethyl;

 $R_3$  is hydrogen or  $C_1-C_3$  alkyl;

if the case, either as a single isomer, or as a mixture thereof, or a pharmaceutically acceptable derivative thereof;

in the manufacture of a medicament for the treatment of head pain conditions involving a cerebral vasodilatation mechanism.

2. Use of an  $\alpha\text{-aminoamide}$  according to claim 1, wherein in formula (I):

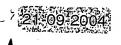
A is a group selected from  $-CH_2-CH_2-$ ,  $-CH_2-O-$ ,  $-CH_2-S-$ ,  $-CH_2-CH_2-O-$ ;

R is a phenyl ring, unsubstituted or substituted by one or two substituents independently selected from halogen,  $C_1-C_3$  alkyl or a methoxy group; or a thienyl ring;

 $R_1$  is hydrogen or  $C_1-C_2$  alkyl;

 $R_2$  is hydrogen or methyl, unsubstituted or substituted by hydroxy, or phenyl unsubstituted or substituted by  $C_1-C_2$  alkyl, halogen, hydroxy, methoxy or trifluoromethyl; and

 $R_3$  is hydrogen or  $C_1-C_2$  alkyl.





3. Use of an  $\alpha\text{-aminoamide}$  according to claim 1 or 2, wherein in formula (I):

A is  $-CH_2-O-$ ,  $-CH_2-S-$  or  $-CH_2-CH_2-$ ;

R is a phenyl ring, unsubstituted or substituted by one or two halogen atoms;

R<sub>1</sub> is hydrogen;

 $\ensuremath{R_2}$  is hydrogen or methyl, unsubstituted or substituted by hydroxy or phenyl ring, unsubstituted or substituted by a halogen atom; and  $\ensuremath{\,{}^{\circ}}$ 

 $R_3$  is hydrogen or methyl.

4. Use of an  $\alpha\text{-aminoamide}$  according to claim 1, wherein the  $\alpha\text{-aminoamide}$  is selected from:

2-(4-benzyloxybenzylamino)propanamide;

2-[4-(2-fluorobenzyloxy)benzylamino]propanamide;

·2-[4-(2-chlorobenzyloxy)benzylamino]propanamide;

2-[4-(3-fluorobenzyloxy)benzylamino]propanamide;

2-[4-(3-chlorobenzyloxy) benzylamino]propanamide;

2-[4-(4-fluorobenzyloxy)benzylamino]propanamide;

2-[4-(2-fluorobenzyloxy)benzylamino]-N-methyl-propanamide;

2-[4-(3-fluorobenzyloxy)benzylamino]-N-methyl-propanamide;

2-[4-(2-fluorobenzyloxy)benzylamino]-3-hydroxy-propanamide;

2-[4-(3-fluorobenzyloxy)benzylamino]-3-hydroxy-propanamide;

2-(4-benzyloxybenzylamino)-3-hydroxy-N-methylpropanamide;

2-[4-(2-fluorobenzyloxy)benzylamino]-3-hydroxy-N-methylpropanamide;

2-[4-(2-chlorobenzyloxy)benzylamino]-3-hydroxy-N-methylpropanamide;

2-[4-(3-fluorobenzyloxy)benzylamino]-3-hydroxy-N-methylpropanamide;

2-[4-(3-chlorobenzyloxy)benzylamino]-3-hydroxy-N-methylpropanamide;

2-(4-(2-thienylmethylenoxy)benzylamino)-propanamide;

2-[4-(2-(3-fluorophenyl)ethyl)benzylamino]-propanamide;

2-[4-benzylthiobenzylamino]-propanamide;

2-[4-benzyloxybenzylamino]-3-phenyl-N-methylpropanamide;



- 2-[4-benzyloxybenzylamino] N-methylbutanamide;
- 2-[4-benzyloxybenzylamino]-2-phenyl-acetamide;
- 2-[4-(2-fluorobenzyloxy)benzylamino]-2-phenyl-acetamide;
- 2-[4-(3-fluorobenzyloxy)benzylamino]-2-phenyl-acetamide;
- 2-[4-(3-chlorobenzyloxy)benzylamino]-2-phenyl-acetamide;
- 2-[4-(3-fluorobenzyloxy)benzylamino]-2-(2-fluorophenyl)-acetamide;
- 2-[4-(3-fluorobenzyloxy)benzylamino]-2-(3-fluorophenyl)-acetamide;
- 2-[4-(3-chlorobenzyloxy)benzylamino]-2-(3-fluorophenyl)-acetamide;
- if the case, either as a single isomer or as a mixture thereof, or a pharmaceutically acceptable derivative thereof.
- 5. Use of an  $\alpha$ -aminoamide according to any of the previous claims, wherein the  $\alpha$ -aminoamide is selected from: (S)-(+)-2-[4-(3-fluorobenzyloxy)benzylamino]-propanamide, (S)-(+)-2-[4-(2-fluorobenzyloxy)benzylamino]-propanamide and (S)-(+)-2-[4-(3-chlorobenzyloxy)benzylamino]-propanamide.
- 6. Use according to any of the previous claims, wherein head pain conditions are both primary and secondary headache disorders.
- 7. Use according to any of the previous claims, wherein head pain conditions include migraine, headache, hemicrania.
- 8. Use according to any of the previous claims, wherein migraine is acute, transformed or vascular migraine; headache is acute, cluster, evolutive or tension type headache; hemicrania is chronic paroxysmal hemicrania.
- 9. A method for the treatment of head pain conditions involving a cerebral vasodilatation mechanism in a mammal in need thereof comprising administering to the mammal a therapeutically effective dose of at least one  $\alpha$ -aminoamide of formula (I) as defined in any of claims 1 to 5.
- 10. A method according to the previous claim, wherein the mammal is administered a dose of the  $\alpha\text{-aminoamide}$  of formula (I)





as defined in any of claims 1 to 5 which ranges from about 0.05 to 20~mg/kg body weight per day.

- 11. A method according to claim 9 or 10, wherein the mammal is administered a dose of the  $\alpha$ -aminoamide of formula (I) as defined in any of claims 1 to 5 which ranges from about 0.5 to 10 mg/kg day.
- 12. A method according to any of claims from 9 to 11, wherein the mammal is administered a dose of the  $\alpha$ -aminoamide of formula (I) as defined in any of claims 1 to 5 which ranges from about 0.5 to 5 mg/kg day.
- 13. A method according to any of claims from 9 to 12, wherein the head pain conditions are as defined in any of claims 6 to 8.